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ABSTRACT

This paper traces the three stages of development of gifted programming in Taiwan, services that are now available in gifted education, and continuing challenges in gifted education. Critical events that shaped gifted education during 1973-78, 1980-81, and 1982-89 are described, including gifted programming for elementary students, junior high school students, and high school students. The establishment of summer camps for gifted students, the benefits and disadvantages to self-contained special classes and resource rooms, and the allowance for grade acceleration are discussed. Changes in gifted programming and services that are now available to gifted students are described, including: (1) earlier enrollment and acceleration; (2) more and better training of teachers; (3) access to a variety of programs; (4) additional avenues to higher level schools; and (5) the availability of more resources for gifted students. Problems and challenges in the development of gifted education are also discussed, including the definition and identification of gifted students, the impact of entrance examinations, the need for better curricula and teaching methods, and the need for a support system for gifted students. (Contains 47 references.) (CR)

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GIFTED EDUCATION IN TAIWAN:
SERVICES, PROBLEMS AND CHALLENGES

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Gifted Education in Taiwan: Services, Problems and Challenges

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Abstract

Since 1973, special education for gifted students in Taiwan have gone through three stages. Following each stage and the promulgation of the Special Education Law in 1984, special services for gifted and talented students have been developed. Some services advantageous to them are: earlier enrollment and acceleration; more trained teachers; access to a variety of programs; additional avenues to higher level schools and more resources available. Problems being faced are listed and possible solutions are also discussed.

Gifted Education in Taiwan:
Services, Problems and Challenges

Historical Background

Two-thousand, five-hundred years ago, Confucius became the great archetype of the great teacher for the Chinese. He thought that students are different in their abilities and talents; therefore, the teachers should teach them based on their strengths. The Master said, "To those whose talents are above mediocrity, the highest subjects may be announced. To those who are below mediocrity, the highest subjects may not be announced." (Legge,1971). His philosophy, being popular to all Chinese, has provided a good rationale for the development of special education for gifted students in Taiwan . Chinese have educated their youth in formal settings since the Three Dynasties(2205 BC-249BC). The government instituted education for the purpose of training and selecting men for administrative positions. This process was completed by the early Han period(206BC-7AD)with the introduction of civil service examinations based on the study of classical literature(Ministry of Education, 1981). Since then, education and examination focused on identifying and cultivating leaders for the grovenment. In 1911, Dr. Sun Yat-Sen overthrew the Ching Dynasty(1644-1911) and founded the Republic of China. Later, the Constitution provided that opportunities for learning would be extended to all on an equitable basis, and gifted people should be given special training(see Constitution, Article 159).

After World War II, the govenment of the Republic of China moved to Taiwan. Taiwan now has a population of twenty-one million. Most of the educational policies are made by the Ministry of Education in the central govement under the supervision of congressmen. Students are mandated to go to school for nine years,that is, six years in elementary school and three years in junior high school. After passing an entrance examination, students may enter high school for three years and then pursue a college education if they pass a college entrance examination.

Special Education for Gifted Students of the Last Two Decades

Motivated by the suggestions of the National Education Convention in 1962, administrators of two elementary schools in Taipei started an enrichment curriculum for gifted students in 1963. In 1971, an elementary school in Taichung City started a special class for gifted students. These students were enriched in mathematics, science and Chinese(Shu, 1978). In order to explore the characteristics of gifted students and develop appropriate, effective forms of education, the Ministry of Education began experimental programs for gifted students in 1973. Over time, these programs have gone through three stages. These stages, which included policies and guidelines, play an important role in the recent development of education for gifted students in Taiwan.

Stage one

The first stage of programming was designed to provide special education for gifted elementary students. This occurred during 1973-1979. During this period, the major pattern was the self-contained special class for gifted students in elementary schools. Enrichment was done in the special class. To be in this program, students had to have outstanding achievement or an IQ of at least 130, or be recommended by teachers (Ministry of Education, 1973). In 1978, Taiwan Normal University proceeded with an evaluation of eighteen classes from six experimental schools. In addition, the same number of gifted students from regular classes in the same area were selected for comparison groups. Results showed that programs for elementary gifted students were beneficial for children's academic achievement in Chinese and math(Wu,1983). However, since all the highly capable students were in the same class, the competition was great. Students also suffered from the pressure of parents' and teachers' expectations. Therefore, their self-concept tended to be more negative than the self-concept of gifted students in regular classes. They also lacked self-confidence and showed more hostility toward each other than did gifted students in the regular classroom(Kuo,1979)

Stage two

The second stage of programming was designed to extend special education to gifted students at the junior high school level. Since evaluation of stage one revealed some problems with the self-contained special class, resource room programming was also made available(Ministry of Education,1979). Gifted students were in regular classrooms, but during certain times they were able to take advantage of resource rooms and the help of teachers(Chung,1981).

During the second stage,more and more schools provided programs for gifted students. The programs also included talented students in music, art and dance. By 1981, there were sixty-nine schools which provided special programs for gifted students. Among them, forty schools had programs which served intellectually gifted students and twenty-nine schools served students talented in music, art or dance. The total number of students served in 1981 was 5,055, with362 professional teachers involved (Gifted Education Quarterly, 1981).

Since 1980, there have been summer camps for gifted students each year. Most summer camps were sponsored by normal universities or teachers' colleges. Taking advantage of the professors, libraries, laboratories and other facilities in the universities, gifted students were given an opportunity to use higher level learning skills and creative thinking activities. The experience in summer camps was highly valued by gifted students as indicated by follow up questionnaire and survey(Tsai,1981). One summer program of note is the science camp sponsored by National Taiwan Normal University and the Ministry of Education. Every year in early April, this university holds a week-long series of science camps at which professors evaluate and counsel the participants. If students perform well, they can enter more advanced institutions of higher education by a special selection test. In the first selection in 1983, twelve twelfth-graders and thirty-four ninth-graders passed the screening procedure. By 1988, nearly 1,000 students had attended the science camps, with 211 twelfth-graders and 476 ninth-graders having been selected for higher level education. Many of these students also received scholarships(Wu,1989)

In an effort to explore the effectiveness of the second stage(1979-82), an evaluation was done by the National Taiwan Normal University. Twelve junior high schools with 1,087 gifted students from self-contained special

classes and resource rooms were involved in this study. In addition, 1,046 bright and high-achieving students from regular classes in the same schools were randomly selected as a comparison group. The methods used were field visits and questionnaire surveys. The major findings from questionnaires were these: (1). Gifted students from both types of classes showed better interpersonal relationships than the bright students from regular classes; gifted students from the self-contained special class showed better creative thinking and academic achievement than did those from the resource class and the comparison group. (2). According to the parents of the gifted students, the students from the resource class shouldered heavier academic work than did those from self-contained special class(Wu,1983). They have heavier work because the schools with resource class often arranged the enrichment courses after school instead of during the classroom time. The major findings from the field visits were as these: (1). There were advantages and disadvantages for both the self-contained special class and the resource room class; however, the former was more supported by school administrators than the latter. (2). In general, the positive effects of the program for gifted students was confirmed. (3). The resource classroom model had no marked effect in practice(Wu, 1983).

Stage three

The third stage of programming occurred during 1982 to 1989. In addition to services that were included in the second stage, this stage included opportunities to accelerate through the grade level sequence by skipping school years(Ministry of Education, 1982). Some statutes were also set up to foster acceleration. For example, for the gifted children in elementary schools, the time of matriculation could be shortened by one year(The Statute of Compulsory Education,1979). Students in senior high schools should be guided according to their capacities, aptitudes and interests. Special guidance should be given to gifted students. The time of enrollment can be shortened in accordance with achievement(Law of High School Education, 1982). According to third stage programming guidelines and related statutes, the school years of each level, including elementary, junior and senior high schools and colleges, can be shortened up to one year, that is, gifted students can complete a college education and earn a bachelor's degree at the age of

eighteen. Without acceleration they would be twenty-two years old.

A few studies showed positive results of the programs for gifted students. For example, 287 gifted students from grades seven to nine drawn from three junior high schools in Taipei were compared with 338 students from regular classes. Results showed that gifted students were superior to regular students in science and mathematics (Wu,Chen,&Tsai,1985). Another survey, which included a sample of students and teachers from six high schools, showed that gifted students have benefited by the learning results compared with regular students. They have more resources available in the learning environments, higher level learning involved in the processes, and achieved higher in language, math and science(Kuo,1988). Also, a follow-up study of the students being served in programs for gifted students ten years ago showed that the students would like to be in the programs for gifted students again if they had the chance. At the time, 57% of the males and 75% of the females were in college. Overall, they had positive attitudes toward the program for gifted students in Taiwan(Chen,1989).

In 1984, the Special Education Law was promulgated. The Law and its following regulations resulted in a rapid growth of the gifted education in Taiwan. Program resources were improved, and programs had more flexibility. The services for highly capable students have been growing year by year. In 1982, the number of gifted students being served in special programs was 5,783, in 1989, the number increased to 16,716(Wu, & Chang, 1990). Up to 1995, the number has increased to 30,699(Chang,&Liau,1995).

Services for Gifted and Talented Students

Over the past twenty years, with the efforts of law makers, administrators, educators, parents and many others, gifted students in Taiwan now are given more and better opportunities to learn and grow. Some services which may be advantageous to gifted students are listed below.

1.Earlier enrollment and acceleration

Students who go to elementary, junior high, and senior high schools and to colleges are usually to be at least age six,twelve,fifteen and eighteen. Under the enrollment rule for special students, however, gifted students are not

limited by those age requirements(Ministry of Education,1988). Following the identification guideline, gifted students can enter elementary schools one or two years earlier. Acceleration is also possible, with the stipulation that students shorten no more than one year in each school level. Students can thus enroll in a higher level school or take entrance examinations one year earlier(Ministry of Education,1988).

2.More and better training of teachers

There are two teachers in each class for gifted programs in elementary school level and three teachers in junior and senior high school levels. Regularly, in each class, there are only 1.5 teachers in the elementary school level and 2 teachers in the junior and senior high school levels. Beyond that, there is also a difference between regular and special programs with regard to the number of students in each class. In regular classes, there are about 40 students while in classes for gifted students there are fewer than 30 (Ministry of Education,1987). Teachers in special education usually have more extensive training than other teachers. They are required to have the certificate of a special teacher(a bachelor degree in special education)or receive an extra 20 credits of professional training beyond the certificate of a teacher(Ministry of Education,1987). Teachers in programs for gifted students also have more access to long-term in-service training and short-term seminars or annual conference. The services that gifted students receive from their teachers may therefore be qualitatively different from that which regular students receive.

3.Access to a variety of programs

In elementary and junior high school levels, students are required to enroll in the school district in which they reside(Law of National Education,1979). Highly capable students are, however, not limited to their home school districts(Ministry of Education,1987). They can go to other districts outside of their regularly established school boundaries. Self-contained special classes or pull-out resource rooms are available for those who are identified as being intellectually gifted. Those who are talented in music, art, dance or drama can join special classes with curricula adjusted to their need and equipped with professional facilities. Gifted students also have access to summer or winter camps designed to expose them to math and science

activities. Guided by college professors and their assistants, gifted students work on their own projects with access to college laboratories(Huang,1988) Senior high school students who have aptitude in math or science can join the advanced classes provided by university professors. During the semesters , students participate in seminars on weekends; in summer and winter, they join intensive classes(Kuo,&Yung,1988).

4.Additional avenues to higher level schools

Students normally need to complete a certain number of years and take entrance examinations to attend higher level schools. To enroll in senior high schools or colleges, for example, the only way is by doing well on entrance examinations. Exceptions are, however, given to highly capable students. By proving their achievement in schools, special programs, summer camps, or advanced classes, students may go through special avenues to a higher level school. Those avenues are available for students talented in math,science,music,art,dance and drama(Ministry of Education,1987). Due to the practice of comparing the total score, entrance examinations do not necessarily pick up talented students. A student talented in math might not be able to go to the math department, for example, if he/she does badly on other parts of the exams. By more flexible entrance paths, students' strengths are more emphasized.

5.More resources available

Many resource rooms in schools are designed specifically for the purpose of serving gifted students. Being limited by the tight school schedule and the lack of assigned activities in resource rooms, regular students'access to resource rooms is unusual. On the other hand, gifted students are either welcomed or assigned to the resource rooms. Resource rooms are started with a special buget provided by the Ministry of Education(Department of Education,1978,1979). Convenient access to resource rooms allows gifted students to take advantage of the learning materials, additional equipment, and teachers' tutoring in resource rooms. They even receive extra hours' teaching(after school or on weekends) in resource rooms without having to pay for these services. Students from gifted programs usually enjoy more outdoor enrichment activities including visiting museums, astronomical observatories, historical temples and national parks, etc. The

government is also encouraged to give scholarships to gifted students(The Law of Special Education, Article 11, 1984).

The cost for students in regular classes and in gifted classes is also different. According to a report of Kaohsiung City(1994), the cost of one single junior high school student in a regular class is $1,751 per year, for those who are talented, in music special class it is $4,976 per year, in fine arts it is $6,093, in dance it is $4,530. The cost is however less than a mentally retarded class which is $11,208.

The advantages for gifted students provided by the school system include earlier enrollment, acceleration, more and better teachers,access to special programs, additional avenues to schools, and more resources available. These advantages come from official policies and are protected by law. Many opportunities have thus been created to serve the special needs of highly capable students. Without these opportunities, highly capable students might have difficulties adjusting to rigid systems and group teaching. There is no doubt that gifted students in Taiwan enjoy some advantageous circumstances that regular students do not.

Problems and Challenges

Data in historical background and services for gifted students have shown the progressive development of gifted education over the past twenty years. To enhance the achievement, it is important to examine the problems being faced and challenge educators to possbile solutions. Last year (1996), a national conference was thus held at Grand Hotel in Kaohsiung City. There were 120 participants including scholars, administrators, teachers, parents and respresentatives from private organizations. The two-day conference proposed problems and solutions focusing on the following issues: educational administration and systems; teacher training; support systems; identification and placement;curriculum and teaching; guidance and follow-up; particular groups; talented education in arts,in dance and in music. Some problems were chosen here by the author and challenges were discussed.

1.Definition and identification

According to the Supplementary Guidelines for the Law of Special Education (Ministry of Education,1987), giftedness is defined as being superior in general ability, academic aptitudes, or special talents. To be gifted in general ability, two criteria are required. One is two standard deviations above the national mean IQ score. Another is achieving in the top 2% of grades in school. To be gifted in academic aptitudes, students need to be one standard deviation above the mean on achievement, intelligence and aptitude or creativity tests. They also need to score in the top 1% in one subject area, or be doing especially well on related academic contests. To be gifted in special talents, students need to be above average on IQ and two standard deviations above the mean on aptitude tests. They also need to perform especially well in music, art or dance. The official guidelines state that major ceriteria for giftedness are test scores. Although teachers' recommendations and school performance are considered in the process of identification, test scores usually influence the final descision. Even the extra tracks to higher level schools are also decided by how well gifted students do on screening tests. Fortunately, from the research results of C. C. Kuo (1995), there were significantly difference of academic achievement between the gifted group and the non-gifted group. It indicated the identification of the past years could select out the academically talented students.

The focus is however on school academic performance. Parents tend to consider the gifted class as an honor and a guarantee of their children to a better school. To help children sequeeze in a gifted class, some parents even arrange private teachers to teach intelligence tests (Lin, 1996). With the conservative definition of giftedness, many students with potential who failed once by tests might lose better opportunities to develop their gifted behavior.

To solve the problem of definition, theories about giftedness need to be developed. The theories should be based on research about Chinese gifted people. A theory developed from the Chinese culture will better explain giftedness in Taiwan, which is in the Chinese cultural environment. Revelant identification and teaching models can also be developed from the theory and related research.

2.Entrance examinations' impact

The purpose of entrance examinations is to provide a fair means of identifying student candidates based on objective test scores. Students who do well on examinations go to schools with better reputations. Since these schools are usually public rather than private, less tuition is charged. To go to the best schools in Taiwan, students do not need to come from rich families. They only need to work hard on their studies and do well on entrance examinations. Doing well on entrance examinations is so emphasized by the society that it puts much pressure on educators, which even the educators involved in programs for gifted students cannot avoid. Evaluation of the second stage programming showed that the students in resource rooms shouldered more academic work. By being given the materials to prepare for the entrance examination from both the classroom teachers and the resource room teachers, and by spending time after-school or weekend activities, it's no fun to be gifted in Taiwan ! Gifted students may learn faster, but they stay in regular classes as long as other students. Besides, they spend extra hours after school in resource rooms probably learning the same things. Some parents may hire private teachers, too. At home, students again spend more time practicing material presented in textbooks. This indicates that gifted students from resource rooms might actually spent three times as long on material as other students. In theory, they should spend less time learning the same materials. No wonder they prefer self-contained special classes. Since students in special classes had higher academic achievement than those in resource rooms (Wu, 1983), parents tried hard to transfer their"gifted" children to special classes. The special class became the "entrance-exam-preparation class', defeating the purposes of gifted education. This indicates that entrance examinations were being over-emphasized. It is the policy of the Ministry of Education to extend the compulsory education to senior high schools in the future. This will lead to the cancellation of entrance examinations from junior high to senior high schools. The pressure on students in junior high schools might be reduced at that time. Programs for gifted learners in elementary schools are not so much influenced by entrance examinations. Teachers can target broader or higher-level enrichment without worrying about exams. Students can also "afford" to be interested in reading materials not included in textbooks (Lu, 1982).

Exams might help motivate students to work harder, and may identify candidates uniformly and force schools to cover all materials from textbooks.

On the other hand, entrance examinations put too much pressure on students, parents and teachers. This results in manipulating the direction of curricula. Teachers emphasize and teach whatever will be examined. Focus is not on higher level learning. A great deal of time is rather spent on repeatedly covering material so that students can perform quickly with limited time when under pressure. Curricular material that is not going to be tested can easily be neglected and schools might "exist" for the preparation of students for entrance examinations. Under this pressure, especially in high school levels, systematic productive enrichment for gifted students is seldom possible. This indicates that entrance examinations are over-emphasized.

The value of entrance examinations is controversial. One could argue that they can serve to motivate students to work harder and they can help in the selection of student candidates. On the other hand, entrance examinations put so much pressure on educators, parents and students, that doing well on examinations becomes the major concern in the whole educational system. The content of the examinations will partially determine the teaching materials and teaching methods. Techniques of testing should be improved continuously, so entrance examinations have a more postive impact on education. Passing a test should no longer be the main educational goal. Additional avenues available for gifted students, with their strengths emphasized more, is the other way to lessen the importance of entrance examinations. Four years ago, Universities in Taiwan started to take more responsibility in choosing college candidates. Department faculties create committees and interview high school students. Going to a college, beyond entrance examinations, high school students now have alternative avenues. It is also suggested by the National Conference on Gifted Education that gifted students should mainly go to a higher level school by recommendation.

3.Curricula and teaching methods

There are text books for elementary, junior and senior high school levels. More deepened, broadened and accelerated curricula should be designed for the needs of individual gifted students (The Ministry of Education, 1986). Curricula and teaching methods are influenced by the pressure of entrance examinations. Covering the material in textbooks is the major concern, since items on entrance examinations are created based on textbooks. Deepened enrichment in textbooks contributing to entrance examinations is welcomed

by high school students. On the other hand, pupils from elementary schools do not need to worry about entrance examinations. Broadened enrichment other than what text books can offer is thus enjoyed by them (Chen, 1989). An evaluation showed that teachers put greater emphasis on teaching knowledge, and failed in individualized instruction and creativity. Their enrichment courses were generally developed without syatematic design and appeared odd and incomplete (Wu, 1983). One study also showed that there is no significant difference in terms of creativity among gifted students from self-contained special classes, resource rooms and regular classes (Wong, 1985). Professor Wong (1996) mentioned that problems of curricula in Taiwan are:

1. Curricula prepared by teachers themselves from gifted programs usually are not very well organized.

2. Curriculum content and teaching materials are influenced by entrance examinations.

Alloting time for enrichment is a problem. Compacting and pulling out from regular classes during school hours seldom happen. Management is difficult for administrators. Besides, neglecting materials that entrance examinations are going to cover makes parents and teachers uncomfortable. As a result, enrichment usually happens after school hours. Gifted studenrts might feel bored once in regular classes and yet have repeat the same material after school hours while other students enjoy going home !

Acceleration is another problem. Highly capable students are allowed to be graguated one year earlier on each school level. According to guidelines (The Ministry of Education, 1988), two criteria are required. One is an IQ of above 2.5 standard deviations. The other is grades in the top 2%. Skipping the future school year is thus based on the past achievement. Achieving well in the past does not guarantee that students will learn new materials well. To make sure students have the ability to go to higher level schools, they are required to take achievement tests on their graduating level. However, the subjects are limited to math and language. A possible result might be: producing some students who graduate earlier with one-year curricula omitted which, on the other hand, are familiar to regular students.

Curricula and teaching methods can be improved by teacher training. The problems of acceleration and time for enrichment can be solved by

curriculum compacting. This is a system designed to adapt the regular curriculum to meet the needs of above average students by either eliminating work that has been previously mastered or streamlining work that maybe mastered at a pace commensurate with the student ability (Renzulli & Reis, 1985). Gifted students learn faster; they do not need to spend so much time mastering the same amount of materials as regular students do. Compacting saves them time during school hours. To go to the resource room for enrichment, they can take advantage of the time they have saved rather than spending more hours after school. Acceleration in Taiwan is skipping future school years based on past achievement. The problem is past achievement does not guarantee future achievement. Compacting again can save time for enrichment and also guarantee the mastering of the regular curricula. From this point of view, it is suggested that compacting be used to solve some of the problems discussed.

4. Support System

After over twenty years, gifted and talented education has been no doubt making progress in the Republic of China. Many problems are being faced, too. To continue the progress and to help the gifted develop their potential talents, a support system is crucial. 'Teaching individual according to his or her unique talent" is a philosophy included in our tradition. This kind of philosophy facilitated the development of gifted education in Taiwan. On the other hand, people are also sensitive to the fairness of the educational systems. In meetings of teachers, parents, administrators or even special education scholars, the following voices are still often heard. "Gifted education occupied too much resources". We should be fair to all students, therefore, nothing special should be done to gifted students. People who need help are the poor, the gifted do not need our attention, they can do well by themselves". Programs for gifted or talented students are implemented by schools and supported by administrators. Administrators are thus facing the pressure of not allowing new programs for the gifted to be implemented. Gifted students provided by special services is 30,699 which is only .75%, comparing with the total number of students. This is far less rhan estimated ratio of gifted and talented students. For those receiving special services there are only 25% of gifted students estimated by 3%. If it is estimated by 5%, there are only 15%. Elementary and high schools with special programs for the gifted and tatlented are 353, only 10% of the total (3,458). (Wu, 1996).

This indicates that many gifted and tatlented students still receive no differentiated education. For the last twenty years, many people put efforts on special education. Considering the facts that there are still so many gifted and talented students need special services, gifted education in Taiwan certainly needs more support.

A trend of educational reform has been developed in recent years. Some of the goals are to decentralize the educational administration, to provide more educational opportunities for all students and to enhance more flexible and open education. This reformatory movement deserves attention from those committed to special education. Because openness and flexibility are important to develop potentialities for the gifted and talented. Rather than: "You(students) prove(by screening tests) that you are gifted, then you will have the privilege to be served by special education. The resources will not be given to you except you are being labeled as gifted". We should: " Have more liberal and broaden conceptions of giftedness and provide open education to all students so they have the access to enrichment and challenge activities and have the oportunity to demonstrate their gifted behaviors". Don't ask me whether I am gifted or not. Give me a chance !

REFERENCES

A brief review of special classes for the gifted in R.O.C. (1981). Gifted education quarterly,4, 46.

Chang, B. L. & Liau, Y. K. (1985). Directory of Special Education, Rehabiblitation and Welfare Services in the Republic of China. Taipei: National Taiwan Normal University, Special Education Center.(in Chinese)

Chen, M.I. (1989). A follow-up study of the elementary and junior high school students who were graduated from the first three years of stage one. Unpublished master's thesis, Kaohsiung Normal University, Taiwan(in Chinese)

Chung, S. C. (1981). Examining the effect of resource room projects for

gifted students. Gifted Education Quarterly.3, 15-21 (in Chinese)

The Department of Education (1978). Resource rooms' guidelines in junior high schools. Taichung: Author.

The Department of Education (1979). Resource room' guidelines in elementary schools. Taichung: Author. (in Chinese)

Huang, T. T. (1988). An introduction of science camps for high school students talented in math and science. In Special Series of Gifted Education in High Schools (pp.60-66). Taipei:National Taiwan Normal University, Special Education Center. (in Chinese)

Kaohsiung City. (1994). Report of students' cost in 1994. Unpublished official report, Kaohsiung: Author.

Kuo, C. C. (1995). A study on the identification validity of the gifted students. Bulletin of Special Education. 12, 261-294. (in Chinese)

Kuo, W. F. (1979). An evaluation of the self-concept of gifted children. In Education of the Gifted Children. Taipei: Ministry of Education. (in Chinese)

Kuo, J. U. & Yung, F. N. (1988). The guidance plan of high achieving math and science high school students. In Series of Gifted Education in High School (pp.109-110). Taipei: National Taiwan Normal University, Special Education Center. (in Chinese)

Kuo, T. T. (1988). A comparative study of junior high school gifted students on learning environments, learning processes and learning results. Bulletin of Special Education. 4, 171-192.(in Chinese)

Legge, J., 1971. Confucius (Trans.). New York: Dover.

Lin, S. T. (1996). Identification and placement of gifted students. In Handbook of National Conference on Gifted Education. (pp.55-66). Kaohsiung: National Kaohsiung Normal University, Special Education Center. (in Chinese)

Lu, C. Y. (1982). A study of the interest development of Chinese school gifted students. Bulletin of Educational Psychology. 15, 1-18. (in Chinese)

Lu, M. Q. (1981). Gifted education programs in the elementary schools in Taipei area. Gifted Education Quarterly. 3, 22-24.(in Chinese)

The Ministry of Education (1973). The stage one experimental programming for gifted children. Taipei: Author. (in Chinese)

The Ministry of Education (1979). The stage two experimental programming for gifted children. Taipei: Author. (in Chinese)

The Ministry of Education(1980). The Guidelines for art talented students to go abroad to study. In Laws and Regulations about Special Education and Social Welfare of R.O.C. (p.360-361). Taipei: National Taiwan Normal University, Special Education Center. (in Chinese)

The Ministry of Education(1979). The Law of National Education. In Laws and Regulations about Special Education and Social Welfare of R.O.C. (p.22-25). Taipei: National Taiwan Normal University, Special Education Center. (in Chinese)

The Ministry of Education(1982). The statue of compulsory education. In Laws and Regulations about Special Education and Social Welfare of R.O.C. (p.35-37). Taipei: National Taiwan Normal University, Special Education Center. (in Chinese)

The Ministry of Education(1982). The law of senior high school education. In Laws and Regulations about Special Education and Social Welfare of R.O.C. (p.86-89). Taipei: National Taiwan Normal University, Special Education Center. (in Chinese)

The Ministry of Education(1986). The guidelines for curriculums, teaching materials and teaching methods in special education. In Laws and Regulations about Special Education and Social Welfare of R.O.C. (p.57-59). Taipei: National Taiwan Normal University, Special Education Center. (in Chinese)

The Ministry of Education(1987). The standard facility requirements in special education. In Laws and Regulations about Special Education and Social Welfare of R.O.C. (p.60-67). Taipei: National Taiwan Normal University, Special Education Center. (in Chinese)

The Ministry of Education(1987). The certificate requirements and registration rules for special teachers. In Laws and Regulations about Special Education and Social Welfare of R.O.C. (p.70-78). Taipei: National Taiwan Normal University, Special Education Center. (in Chinese)

The Ministry of Education(1987). The supplementary guidelines for the law of special education. In Laws and Regulations about Special Education and Social Welfare of R.O.C. (p.47-56). Taipei: National Taiwan Normal University, Special Education Center. (in Chinese)

The Ministry of Education and the Special Education Center of National Taiwan Normal University. (1981). Gifted and talented educaton in the Republic of China. Taipei: Author.(in Chinese)

The Ministry of Education (1982). The stage three experimental programming for gifted children. Taipei: Author. (in Chinese)

The Ministry of Education (1984). The Law of Special Education. In Laws and Regulations about Special Education and Social Welfare of R.O.C. (p.42-46). Taipei: National Taiwan Normal University, Special Education Center. (in Chinese)

The Ministry of Education (1987). Main points for guiding the gifted in music. In Laws and Regulations about Special Education and Social Welfare of R.O.C. (p.342-344). Taipei: National Taiwan Normal University, Special Education Center. (in Chinese)

The Ministry of Education (1987). Main points for guiding the gifted in art. In Laws and Regulations about Special Education and Social Welfare of R.O.C. (p.345-347). Taipei: National Taiwan Normal University, Special Education Center. (in Chinese)

The Ministry of Education (1987). Main points for guiding the gifted in

drama. In Laws and Regulations about Special Education and Social Welfare of R.O.C. (p.351-353). Taipei: National Taiwan Normal University, Special Education Center. (in Chinese)

The Ministry of Education (1988). The enrollment rules for special students. In Laws and Regulations about Special Education and Social Welfare of R.O.C. (p.79-85). Taipei: National Taiwan Normal University, Special Education Center. (in Chinese)

The Ministry of Education (1988). The guidelines for gifted students' earlier enrollment. In Laws and Regulations about Special Education and Social Welfare of R.O.C. (p.295-297). Taipei: National Taiwan Normal University, Special Education Center. (in Chinese)

The Ministry of Education (1991). Main points for guiding the gifted in math and science. In Laws and Regulations about Special Education and Social Welfare of R.O.C. (p.308-311). Taipei: National Taiwan Normal University, Special Education Center. (in Chinese)

Renzulli, S. R. & Reis, M. S. (1985). The schoolwide enrichment model. CT, Creative Learning Press.

Sue, S. T. (1978). Education for gifted children. Taipei: Kaiming Book Store (in Chinese)

Tsai, C. C. (1981). A special experience for gifted students- Sunshine Summer Camp. Gifted Education Quarterly. 1, 29-34.(in Chinese)

Wong, R. T. (1985). The influence of special programs on gifted students' achievement, creativity and personality. Bulletin of Tainan Teachers'College. 18, 169-202. (in Chinese)

Wong, T. D. (1996). Curricula and teaching in gifted education. In Handbook of National Conference on Gifted Education. (pp.67-76). Kaohsiung: National Kaohsiung Normal University, Special Education Center. (in Chinese)

Wu, S. W. (1989). Gifted children's self-concept and life adjustment. Bulletin of Tainan Teachers' College. 21, 1-70. (in Chinese)

Wu, W. T. (1983). Evaluation of educational programs for intellectually gifted students in junior high schools in the Republi of China. Paper presented at the 1983 annual convention of NAGC, Philadelphia.

Wu, W. T., Chen, M. F. & Tsai, C.C. (1985). Personal traits, perceived learning environment, and education benefits of the intellectually gifted students in junior high schools. Bulletin of Special Education, 1, 277-312.

Wu, W. T. (1989). Educating the gifted and talented in Tauwan. Taipei: National Taiwan Normal University, Graduate Institute of Special Education.

Wu, T. W. (1996). Gifted educational administration and systems, In Handbook of National Gifted Education Conference. (pp.9-28). Kaohsiung: National Kaohsiung Normal University, Special Education Center.